

09/869142

SEQUENCE LISTING

JC03 Rec'd PCT/PTC 26 JUN 2001

<110> SHOWA DENKO K.K.

<120> NOVEL RHODOCOCCLUS BACTERIA, NITRILASE GENE, NITRYL HYDRATASE GENE AND
AMIDASE GENE FROM RHODOCOCCLUS BACTERIUM, AND PROCESS FOR PRODUCING CARBOXYLIC
ACIDS USING THEM

<130> Q64574

<150> USSN 60/183,754

<151> 2000-02-22

<150> USSN 60/183,821

<151> 2000-02-22

<150> JPA 2000-107855

<151> 2000-04-10

<150> JPA 2000-021797

<151> 2000-01-26

<150> JPA 11-303212

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95

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 305 310 315 320

Ser Thr Ile His Ala Thr His Thr Phe Val Pro Gln Phe Gly Ala Leu

Filed: June 26, 2001

Inventor: E. Kramer

202-293-7060

Sequence Listing

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gta cgc cga ctg ctc gac gcc ggc gca acc atc acc ggc aaa gcg gtg	1513
Val Arg Arg Leu Leu Asp Ala Gly Ala Thr Ile Thr Gly Lys Ala Val	
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tgc gaa gat ctc tgc ttc tcc ggc gcc agc ttc act tcc cac ccc cag	1561
Cys Glu Asp Leu Cys Phe Ser Gly Ala Ser Phe Thr Ser His Pro Gln	
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ccg gtc cgc aac ccc tgg gac gaa agc cgc atc acc ggc ggc tcg tcc	1609
Pro Val Arg Asn Pro Trp Asp Glu Ser Arg Ile Thr Gly Gly Ser Ser	
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Ser Gly Ser Gly Ala Leu Val Ala Ser Gly Gln Val Asp Met Ala Val	
175 180 185	
ggc ggc gac cag ggc ggt tcg atc cgc atc ccc gcc gcg ttc tgc ggc	1705
Gly Gly Asp Gln Gly Gly Ser Ile Arg Ile Pro Ala Ala Phe Cys Gly	
190 195 200	
atc gtc gga cac aaa ccc acc cac gga ctg gtc ccc tat acg gga gca	1753
Ile Val Gly His Lys Pro Thr His Gly Leu Val Pro Tyr Thr Gly Ala	
205 210 215 220	
ttt ccc atc gaa cga acc atc gac cac ctc ggt ccg atg acg cgc acg	1801
Phe Pro Ile Glu Arg Thr Ile Asp His Leu Gly Pro Met Thr Arg Thr	
225 230 235	
gtc agc gac gcc gcc gca atg ctc acc gtc ctc gcc ggc acc gac ggc	1849
Val Ser Asp Ala Ala Ala Met Leu Thr Val Leu Ala Gly Thr Asp Gly	
240 245 250	
ctc gat ccc cga cag acc cac cgg atc gaa ccg gtg gac tac ctc gcg	1897
Leu Asp Pro Arg Gln Thr His Arg Ile Glu Pro Val Asp Tyr Leu Ala	
255 260 265	
gcg ctg gcc gaa ccc gca tcg ggt ctg cgc gtg ggt gtg gtc acc gaa	1945
Ala Leu Ala Glu Pro Ala Ser Gly Leu Arg Val Gly Val Val Thr Glu	
270 275 280	
ggc ttc gac acc cct gtc tcc gac gct gcc gtc gac aat gcc gtg cgc	1993
Gly Phe Asp Thr Pro Val Ser Asp Ala Ala Val Asp Asn Ala Val Arg	
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acc gcc atc ggc gta ctg cgc tcg gcc gga ctt acc gtc gaa gag gtc	2041
Thr Ala Ile Gly Val Leu Arg Ser Ala Gly Leu Thr Val Glu Glu Val	
305 310 315	
tcg atc ccc tgg cac ctc gat gcg atg gcc gtc tgg aac gtg atc gac	2089
Ser Ile Pro Trp His Leu Asp Ala Met Ala Val Trp Asn Val Ile Asp	
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cgg gcc gac gac gaa ttc gaa gcc ttc ctg ctg cag gtg ctc gac gag	2137
Arg Ala Asp Asp Glu Phe Glu Ala Phe Leu Leu Gln Val Leu Asp Glu	
335 340 345	
aac gcc gtc acc atc ccc gaa ctc gga cag gtg cgg gcg cag acg ccg	2185
Asn Ala Val Thr Ile Pro Glu Leu Gly Gln Val Arg Ala Gln Thr Pro	
350 355 360	
cgc tcg tgg tgc tca cct cga acc gca ccc gcg agg tgc acg acg ccc	2233
Arg Ser Trp Cys Ser Pro Arg Thr Ala Pro Ala Arg Cys Thr Thr Pro	
365 370 375 380	

tca aac gcc gct gcc tgt acc act ggc tgc aac acc ccg acc tgc cgc	2281
Ser Asn Ala Ala Ala Cys Thr Thr Gly Ser Asn Thr Pro Thr Ser Arg	
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Gly Lys Trp Arg Ser Cys Ala Ala Ala Ser Arg Ala Ser Thr Asn Thr	
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tcg cgg cgc agg tgc ccc acg ccg tgc agg cca tgc gcg gga tgg acc	2377
Ser Arg Arg Arg Ser Pro Thr Pro Cys Arg Pro Cys Ala Gly Trp Thr	
415 420 425	
tgc tca aac cac ccg ggg tgc cgg agt cgc tgg act ggg cac gag cgc	2425
Cys Ser Asn His Pro Gly Ser Arg Ser Arg Trp Thr Gly His Glu Arg	
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Cys Gly Asn Ser Thr Ala Thr Cys Ser Thr Arg Arg Pro Arg Pro Arg	
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ccc tgc gtg ccg tcc tga agtaccggga ggacctcgac cgagtgggtcc	2521
Pro Ser Val Pro Ser	
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14/15

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Pro Ala Ser Gly Leu Arg Val Gly Val Val Thr Glu Gly Phe Asp Thr
 275 280 285

Pro Val Ser Asp Ala Ala Val Asp Asn Ala Val Arg Thr Ala Ile Gly
 290 295 300

Val Leu Arg Ser Ala Gly Leu Thr Val Glu Glu Val Ser Ile Pro Trp
 305 310 315 320

His Leu Asp Ala Met Ala Val Trp Asn Val Ile Asp Arg Ala Asp Asp
 325 330 335

Glu Phe Glu Ala Phe Leu Leu Gln Val Leu Asp Glu Asn Ala Val Thr
 340 345 350

Ile Pro Glu Leu Gly Gln Val Arg Ala Gln Thr Pro Arg Ser Trp Cys
 355 360 365

Ser Pro Arg Thr Ala Pro Ala Arg Cys Thr Thr Pro Ser Asn Ala Ala
 370 375 380

Ala Cys Thr Thr Gly Ser Asn Thr Pro Thr Ser Arg Gly Lys Trp Arg
 385 390 395 400

Ser Cys Ala Ala Ala Ser Arg Ala Ser Thr Asn Thr Ser Arg Arg Arg
 405 410 415

Ser Pro Thr Pro Cys Arg Pro Cys Ala Gly Trp Thr Cys Ser Asn His
 420 425 430

Pro Gly Ser Arg Ser Arg Trp Thr Gly His Glu Arg Cys Gly Asn Ser
 435 440 445

Thr Ala Thr Cys Ser Thr Arg Arg Pro Arg Pro Arg Pro Ser Val Pro
 450 455 460

Ser
 465